REMARKS

Claims 1-15 are pending in this application. By this Amendment, claims 1 and 11 are amended only to correct minor typographical errors. Thus, no new matter is added.

I. Claim Rejections Under 35 U.S.C. §103

Claims 1-3, 6-10 and 12-15 are rejected under 35 U.S.C. §103(a) as being unpatentable over WO 99/14516 to Schmitt et al. (Schmitt) which is the English equivalent of U.S. Patent No. 6,315,086, in view of U.S. Patent No. 2,881,619 to Fox. The rejection is respectfully traversed.

Applicants assert that neither Schmitt nor Fox, whether considered alone or in combination, disclose or suggest each and every feature recited in the rejected claims. For example, the combination of references does not disclose or suggest an actuator, comprising an eccentrically positioned gear wheel having radially outward directed teeth, wherein the outer diameter of the gear wheel is smaller than the inner diameter of the gear ring, such that the teeth of the gear wheel and the gear ring engage each other along a part of their circumferences, and at an opposite part of their circumferences are out of engagement, the eccentric gear wheel being rotatably accommodated on an eccentrically shaped hub which is connected to the rotor of the motor, wherein the gear ring is integrated with the screw of the screw mechanism, the gear ring being rotatably supported with relation to the housing.

The Office Action admits that Schmitt does not disclose the use of an eccentric gear wheel for the reduction mechanism. Applicants submit that in addition to the admitted deficiency, Schmitt also does not disclose or suggest an eccentrically shaped hub, a gear ring and gear wheel which are out of engagement at a part of their circumferences, or a gear ring integrated with the screw of the screw mechanism.

To overcome the admitted deficiency, the Office Ac on combines Fox with Schmitt and alleges that it would have been obvious to one of ordinary skill in the art at the time the

invention was made to use an eccentric gear wheel for the reduction mechanism as taught by Fox in the brake device of Schmitt. Applicants assert that there is no suggestion or motivation in either of the references to make the alleged combination.

In rejecting claims under 35 U.S.C. §103 it is incumbent on the Examiner to establish a factual basis to support the legal conclusion of obviousness. In doing so, the Examiner must provide the actual determinations as set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 U.S.P.Q., 459, 467 (1966). Thus, the Examiner is required to provide (1) some suggestion or motivation in either of the references or in the knowledge generally available to one of ordinary skill in the art, to modify the references or combine the teachings; (2) a reasonable expectation of success, and (3) the combination must teach or suggest all of the claimed features.

As stated above, the Office Action admits that Schmitt does not teach each and every feature recited in the rejected claims. To overcome the deficiency the Examiner combines Fox. However, when making such a combination, the Examiner must provide a reason why one of ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such a reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art.

The problem being addressed in the present application is the deficiency in known gear reduction mechanisms, i.e., those comprising a ring gear and satellite gears, etc., to provide an actuator having a gear reduction means with a large reduction and relatively small dimensions and low weight (see the specification of the instant application). In Schmitt, the problem being addressed is to reduce the influence of "disturbing forces and moments" due to considerable loads placed on a spindle due to brake wear. Thus, providing an actuator having a gear reduction means with a large reduction and relatively small dimensions and low

weight, is not contemplated in Schmitt. Furthermore, Fox discloses a coaxial control rod drive mechanism for neutronic reactors. Such control rods are employed to control the atomic/nuclear reaction occurring in neutronic reactors. Thus, not only is Fox not of pertinent art to Schmitt or the instant invention, but there is no motivation or suggestion in Fox combine a control rod of a nuclear reactor with a brake mechanism, as alleged in the Office Action. Accordingly, the first criteria set forth in Graham v. John Deere is not met and the Office Action has failed to set forth a *prima facia* case of obviousness.

Additionally, Fox discloses an eccentric gear wheel 8 which by means of a needle bearing 7 is mounted on an eccentric section 19 of a hub 4. The eccentric gear is an engagement with a ring gear 10 integrated with an internally threaded portion (col. 3, lines 53-56 of Fox). Thus, the internally threaded portion (or nut) of Fox engages correspondingly to the threaded portion of the drive screw. Therefore, there would be no reasonable expectation of success even were the proposed combination made. Accordingly, the second criteria set forth in Graham v. John Deere Co., has not been met.

Regarding the third requirement of Graham v. John Deere, the combination must teach or suggest all of claimed features. Applicants submit that even were the proposed a combination made, the combination would still not teach or suggest all of the recited features. For example, even were the eccentric gear wheel and hub of Fox combined with Schmitt, the combination would not disclose or suggest the gear ring integrated with the screw of the screw mechanism. Accordingly, Applicants request the rejection of claims 1-3, 6-10 and 12-15 under 35 U.S.C. §103(a) be withdrawn.

Claims 4, 5, and 11 are rejected under 35 U.S.C. §103(a) as unpatentable over Schmitt as modified by Fox, and further in view of U.S. Patent No. 5,829,557 to Halasy-Wimmer et al. (Halasy-Wimmer). The rejection is respectfully traversed.

Applicants assert that claims 4, 5 and 11 are allowable for at least their dependency on independent claim 1 for the reasons discussed above, as well as for the additional features recited therein. Furthermore, although Halasy-Wimmer discloses a spiral ring 23, Halasy-Wimmer does not disclose or suggest a positive back-drive mechanism connected to a flange in the housing, as recited in claims 4 and 5. Thus, Applicants respectfully request the rejection of claims 4, 5 and 11 under 35 U.S.C. §103(a) be withdrawn.

II. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-15 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

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